

CLAIMS

What is Claimed is:

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1. A communication system comprising:

a plurality of information receiver and retransmitter devices (IRRTs) coupled to the Internet wherein each IRRT is for receiving and rendering broadcast information and for selectively retransmitting said broadcast information to another IRRT;

10 a plurality of primary broadcast servers coupled to the Internet, each for originating respective primary broadcast information that is chaincast among a group of IRRTs of said plurality of IRRTs; and

a chaincast manager coupled to said Internet and for registering said plurality of primary broadcast servers and for scheduling information transfers of  
15 said respective primary broadcast information to IRRTs based on broadcast requests generated by said IRRTs to said chaincast manager.

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2. A communication system as described in Claim 1 further

comprising a plurality of secondary broadcast servers coupled to the Internet and each for originating respective secondary broadcast information that is chaincast among a group of IRRTs of said plurality of IRRTs.

3. A communication system as described in Claim 2 wherein said

chaincast manager is also for scheduling information transfers of said

25 secondary broadcast information to IRRTs.

4. A communication system as described in Claim 3 wherein said chaincast manager is also for supplying a respective IRRT with a list of all registered primary broadcast servers in response to a request by said respective IRRT for said list.

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5. A communication system as described in Claim 3 wherein said primary broadcast information is digitally encoded audio information representing audio programs and wherein said plurality of primary broadcast servers are radio stations.

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6. A communication system as described in Claim 5 wherein each IRRT comprises a computer system for rendering a graphical user interface display of a radio device for allowing a user to request one or more of said primary broadcast servers from which to receive primary broadcast information.

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7. A communication system as described in Claim 3 wherein said primary broadcast information is digitally encoded audio/visual information representing audio/visual programs and wherein said plurality of primary broadcast servers are television stations.

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8. A communication system as described in Claim 3 wherein said primary broadcast information is digitally encoded audio/visual information representing audio/visual programs and wherein said plurality of primary broadcast servers are multi-media content providers.

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9. A communication system as described in Claim 3 wherein said secondary broadcast information is digitally encoded audio information

representing advertising content and wherein said plurality of secondary broadcast servers are advertisers.

10. A communication system as described in Claim 3 wherein said  
5 secondary broadcast information is digitally encoded audio/visual information representing advertising content and wherein said plurality of secondary broadcast servers are advertisers.

11. A communication system as described in Claim 3 wherein said  
10 secondary broadcast information is digitally encoded information representing news material.

Sub a<sup>2</sup> 12. A communication system comprising:  
a plurality of information receiver and retransmitter devices (IRRTs)  
15 coupled to the Internet wherein each IRRT is for receiving and rendering broadcast information and for selectively retransmitting said broadcast information to another IRRT;  
a plurality of primary broadcast servers coupled to the Internet and each for originating respective radio broadcast information that is chaincast among a  
20 group of IRRTs;  
a plurality of secondary broadcast servers coupled to the Internet and each for originating respective advertisement broadcast information that is chaincast among a group of IRRTs; and  
a chaincast manager coupled to said Internet and for registering said  
25 plurality of primary and secondary broadcast servers and for scheduling information transfers of said radio broadcast information to IRRTs based on broadcast requests generated by said IRRTs to said chaincast manager and

wherein said chaincast manager is also for supplying a respective IRRT with a list of all registered primary broadcast servers in response to a request by said respective IRRT for said list.

5 13. A communication system as described in Claim 12 wherein said chaincast manager is also for scheduling information transfers of said advertisement broadcast information to IRRTs.

10 14. A communication system as described in Claim 13 wherein said radio broadcast information is digitally encoded audio information representing radio programs and wherein said plurality of primary broadcast servers are radio stations.

15 15. A communication system as described in Claim 14 wherein each IRRT comprises a computer system for rendering a graphical user interface display of a radio device for allowing a user to request one or more of said primary broadcast servers from which to receive radio broadcast information.

20 16. A method of communicating broadcast information over the Internet comprising the steps of:

a) causing a primary server to communicate a first stream of data packets representing primary broadcast information to a first user device and rendering said primary broadcast information thereon, wherein said server and said first user device are coupled to the Internet;

25 b) causing said server to communicate a second stream of data packets representing said primary broadcast information to a second user device and rendering said primary broadcast information thereon, wherein said

second user device is coupled to the Internet and configured for rendering said primary broadcast information;

c) causing said first user device to communicate a third stream of data packets representing said primary broadcast information to a third user

5 device and rendering said primary broadcast information thereon, wherein said third user device is coupled to the Internet and configured for rendering said primary broadcast information;

d) monitoring a packet rate of said third stream; and

f) in response to said packet rate falling below a pre-determined  
10 rate, causing said second user device to communicate a fourth stream of data packets representing said primary broadcast information to said third user device.

17. A method as recited in Claim 16 wherein said step (d) comprises  
15 the steps of:

monitoring a number of unrendered data packets stored in a re-transmission buffer of said third user device; and

in response to said number of unrendered data packets dropping below a pre-determined level, causing said third user device to signal a chaincast

20 manager to select said second user device.

18. A method as recited in Claim 16 further comprising the steps of:

adding a fourth user device on the Internet; and

causing said third user device to communicate a fifth stream of data

25 packets representing said primary broadcast information to said fourth user device.

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19. A method as recited in Claim 18 wherein said step of adding comprises the steps of:

registering said fourth user device with a chaincast manager, wherein said chaincast manager is coupled to the Internet; and

5 said chaincast manager instructing said third user device to communicate said fifth stream of data packets to said fourth user device.

20. A method as recited in Claim 19 further comprising the steps of: adding a secondary server on the Internet;

10 causing said secondary server to communicate a fifth stream of data packets representing secondary broadcast information to said first user device and rendering said secondary broadcast information on said first user device; and

15 causing said first user device to communicate a sixth stream of data packets representing said secondary broadcast information to said third user device and rendering said secondary broadcast information on said third user device.

21. A method as recited in Claim 20 wherein said step of adding comprises the steps of:

registering said secondary server with a chaincast manager, wherein said chaincast manager is coupled to the Internet; and

25 said re-transmission instructing said secondary server to communicate said fifth stream of data packets to said first user device and instructing said first user device to communicate said sixth stream of data packets to said third user device.

22. A method as recited in Claim 20 further comprises the step of said third user device rendering said primary broadcast information simultaneously with said secondary broadcast information.

5 23. A method as recited in Claim 16 wherein said first, second and third user devices each comprises a hardware Internet radio device.

24. A method as recited in Claim 23 wherein said primary broadcast information comprises content broadcast by a radio station.

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25. A method as recited in Claim 16 wherein said first, second and third user devices each comprises a computer system configured for rendering said primary broadcast information and for re-transmitting said primary broadcast information to another computer system coupled to the Internet.

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26. A method of communicating Web content over the Internet comprising the steps of:

a) causing a Web server to communicate a first stream of data packets representing content of an URL (Universal Resource Locator) to a first user device and causing said first user device to render said content thereon when said URL is accessed by said first user device; and

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b) causing said first user device to communicate a second stream of data packets representing said content of said URL to a second user device and causing said second user device to render said content thereon when said

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second user device accesses said URL pseudo-simultaneously with said first user device.

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27. The method according to Claim 26 further comprising the steps of:  
said second user device receiving user inputs indicative of said URL; and  
causing said second user device to transmit said URL to a chaincast  
manager, wherein said chaincast manager is coupled to the Internet and  
5 wherein said chaincast manager is for scheduling transfers of information  
among said Web server and said first and second user devices.

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28. The method according to Claim 25 wherein said first user device,  
said second user device and said third user device each comprises a computer  
10 system.

29. The method according to Claim 28 wherein said computer system  
comprises Web browser software having a plug-in module with chaincasting  
capability.

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